LAW OFFICES

JOYCE & ASSOCIATES

10 Laurel Parkway
Chevy Chase, MD 20815

Rodney L. Joyce
(202) 415-4094 (ph)
(301) 718-6371 (fax)
RLJoyce@comcast.net

May 24, 2004

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: GN Dkt. No. 04-54

Dear Ms. Dortch:

Enclosed for filing in the above docket are the original and four copies of "Reply Comments of Telecommunications Manufacturer Coalition."

Sincerely,

Rodney L. Joyce

Enclosures

Before the

FEDERAL COMMUNICATIONS COMMISSION

Washington, DC 20554

In the Matter of:	)	
	)	
Inquiry Concerning the Deployment of	)	
Advanced Telecommunications Capability to	)	GN Dkt. No. 04-54
All Americans In a Reasonable and Timely	)	
Fashion, and Possible Steps to Accelerate Such	)	
Deployment Pursuant to Section 706 of the	)	
Telecommunications Act of 1996.	)	

REPLY COMMENTS OF TELECOMMUNICATIONS MANUFACTURER COALITION

This Reply, by an ad hoc coalition of companies making a wide range of products that improve communications capabilities, is filed in order to respond both to (i) the FCC's request for suggestions about what it should do to stimulate the deployment of products that are useful in providing advanced communications services[1] and (ii) the opening comments of other parties.

DISCUSSION

I. Because of Their Negative Impact on Capital Purchases, the Commission Should Repeal Regulations that Unfairly Subject ILECs' Advanced Services to the USF Tax and to Common Carrier Regulation, and It Should Make Clear Once and for All that ILEC Fiber Loops Are Not Subject to Mandatory Leasing to Competitors as an Unbundled Network Element

The most important thing that the Commission can do to encourage the deployment of products that permit the provision of advanced communication capabilities -- like high speed Internet access, real time two-way video transmission, and voice-over-IP -- is to eliminate regulations that apply unfairly only to incumbent local exchange companies ("ILECs"). The U S Court of Appeals for the D.C Circuit held this past March in reviewing the FCC's Triennial

[1] Notice of Inquiry at ¶ ¶ 36-37

Review Order ("TRO") that Section 706 of the Communications Act authorizes the FCC to eliminate regulations that slow spending on telecommunications products even when those regulations serve a valid policy.[2] In the particular case before the D.C. Circuit at that time, the Court held that the FCC had acted lawfully in eliminating a rule requiring ILECs to lease fiber loops to competitors ("CLECs") at below market prices for use in providing advanced services. Although the court found that eliminating this rule might hurt CLECs in their ability to provide advanced services, it upheld the FCC's decision to eliminate the rule since it also reduces the incentive of both ILECs and their CLEC competitors to purchase new telecom products.[3]

The FCC should now use the authority provided by Section 706 to eliminate *other* regulations that unfairly discourage the purchase of products that are useful in providing advanced communications services. Three regulatory requirements that have this effect and that therefore should be promptly repealed are discussed below.

The first regulation that should be eliminated due to its negative impact on the purchase of telecom products is one which requires carriers providing high speed Internet access service using DSL technology to contribute nearly nine percent of their DSL revenues to the FCC's universal service fund ("USF"). This requirement discourages telecom capital spending since it decreases consumer demand by increasing the cost to provide service (and therefore the price to obtain such service). It also discourages capital spending since it applies to carriers using DSL technology but not carriers using other technologies, such as cable modem technology, in providing functionally identical service. More than 27 months ago, the Commission opened a

---

[2] *USTA v FCC*, 359 F. 3d 554 (D C Cir. 2004), slip op at 35-37.

[3] *Id*, slip op at 37-44

rulemaking one of whose purposes was to determine whether to end this discriminatory tax on DSL services, but it has not yet taken any action.[4]

A second set of regulations that slows telecom capital spending are requirements that subject advanced services to common carrier regulation (including retail pricing and tariffing regulation) when provided using DSL technology, while exempting from common carrier regulation functionally identical services using other technologies such as cable modem technology. In early 2002, the FCC issued an order holding that cable modem services are not subject to common carrier regulation,[5] and at roughly the same time the Commission called for comments on whether to repeal regulations subjecting the functionally identical DSL services to common carrier regulation.[6] Again, however, the agency has taken no action.

Fiber-to-the-home infrastructure investments likewise are slowed due to continued uncertainty about whether ILECs that deploy such technology will be required to lease fiber loops to CLEC competitors at below market prices. Although the D.C. Circuit's TRO order referred to above upheld the FCC's decision to repeal the mandatory fiber loop leasing rule that the agency had adopted pursuant to Section 251 of the Act, uncertainty persists as a practical matter about whether that rule will again go into effect. This is because the D.C. Circuit's order almost certainly will be appealed to the Supreme Court within the next few weeks and because CLECs have urged the FCC to clarify that mandatory leasing, although no longer in effect under

---

[4] *See Appppropriate Framework for Broadband Access to the Internet Over Wireline Facilities*, Notice of Prop. Rulemaking in CC Dkt No 02-33, FCC 02-42, rel Feb 15, 2002

[5] *See Declaratory Ruling and Notice of Prop Rulemaking, Inquiry Concerning High-Speed Access to the Internet over Cable and Other Facilities*, 17 FCC Rcd 4798 (2002).

[6] *See Review of Regulatory Requirements for Incumbent LEC Broadband Telecomm Services*, Notice of Prop. Rulemaking in CC Dkt No 01-337, FCC 01-360, rel Dec 20, 2001

Section 251, is still in force pursuant to Section 271.[7] In order to stimulate telecom capital spending, the FCC should forthwith clarify that *no* provision of the Communications Act requires ILECs to lease fiber loops to competitors at below market prices.[8]

Two commenters claim in their respective opening comments that eliminating discriminatory regulatory requirements on the ILECs' broadband offerings will *slow* rather than *speed* telecom capital spending. But the only evidence they offer fails to support their claim. For example, Covad asserts that the claim is supported by an SBC official's statement 15 months ago that SBC did not intend to make massive capital investments.[9] In fact, rather than evidencing that such FCC regulations lead to *faster* investment as Covad claims, the SBC official's statement reflects that company's view that such regulations *discourage* such spending since SBC made clear in the statement that one of the main *reasons* the company did not plan to make large capital investments was the existence at that time of an FCC *regulation* requiring ILECs to provide their CLEC competitors with telephone circuit switching functionality at below market prices:

> "SBC . . .won't spend on expansion and innovation of its broadband service while its core phone business is suffering losses [due to this FCC regulation because] 'I can't justify it to my shareholders. . . .'"[10]

---

[7] *See,* e g , AT&T Opp In CC Dkt. 01-338 to Verizon Petition for Forbearance, Nov 17, 2003; MCI Opp. In CC Dkt 01-338 to Verizon Petition for Forbearance, Nov 17, 2003.

[8] Not only should the Commission stimulate telecom capital spending by eliminating regulatory obligations that slow such spending, the agency also should stimulate investment in broadband technologies by establishing rules, as it has proposed to do, defining technical operating parameters necessary to avoid harmful electrical interference when advanced services are provided using electric power line technology. *See Carrier Current Systems, Including Broadband Over Power Line Systems*, ET Dkt , No. 03-104, FCC 04-29, Notice of Proposed Rulemaking, rel. Feb 23, 2004 Likewise, the Commission can stimulate spending on advanced voice telephone IP technology by making clear that all parties are able to provide telephone service using this and any other technology on the same terms. *See Matter of IP-Enabled Services*, WC Dkt No 04-36, FCC 04-28, Notice of Prop Rulemaking, rel March 10, 2004

[9] Covad Comments at 9 (referring to a Feb. 21, 2003 Wall Street Journal article quoting SBC senior Vice President James B Smith as stating that SBC did not intend to increase spending on broadband infrastructure).

[10] quoting from the same Feb 21, 2003 Wall Street Journal article cited by Covad

Covad's claim that *slower* capital spending will result from the FCC's decision to substitute *voluntary* carrier-to-carrier line-sharing and line-splitting negotiations for an FCC regulation that had *required* ILECs to give CLECs free access to the upper frequencies of ILEC loops,[11] appears to be disingenuous since it is inconsistent with what Covad has told investors in its most recent Annual Report. There, Covad stated that it "expect[s] increased sales through [negotiated] line splitting agreements,"[12] and it stated that it "expects costs as a percentage of revenue will decline as we transition more of our customer lines to [these negotiated] line-splitting arrangements . . . because we generally do not pay a fee . . . for access to the high-frequency portion of the phone line used to provide our services in our line-splitting arrangements."[13]

Nor is there any merit in AT&T's claim that ILECs "received all the regulatory relief they requested" in the TRO proceeding and therefore that eliminating discriminatory regulations on ILECs is unnecessary to increased capital spending.[14] This claim lacks merit because the FCC did *not* eliminate all regulatory obstacles to capital spending whose elimination ILECs had sought in the TRO proceeding and because even if the agency *had* eliminated all of those regulations this would show only that the obstacles to capital spending at issue in that particular proceeding are gone rather than showing that *all* regulatory obstacles to telecom capital spending have been repealed.

Finally, there is no truth to AT&T's assertion that the fact that ILECs fail to criticize FCC regulation when speaking to investors shows that FCC regulations do not in fact frustrate

---

[11] Covad Comments at 10

[12] Covad Annual Report (Form 10-K) at 39, filed Feb 27, 2004

[13] *Id* at 40

[14] AT&T Comments at 4

investment.[15] This assertion lacks merit since its premise – that ILECs fail to criticize FCC regulation when speaking to investors—is false given that ILECs often tell investors that FCC regulations constitute a major reason for why network investment has slowed. For example, BellSouth stated in its 2003 Annual Report to investors that its business "continue[s] to be adversely affected by . . . regulatory burdens."[16] Similarly, SBC has repeatedly informed investors that the discriminatory regulatory environment it faces has forced it to slow infrastructure investments:

> "In October 1999, we announced plans to upgrade our network to make broadband services available to approximately 80% of our U.S. wireline customers over the four years through 2003 (Project Pronto). Due to the weakening U.S. economy and an adverse regulatory environment, in October 2001 we announced a scale-back in our broadband deployment plans. Specifically, burdensome FCC and state commission regulations regarding our DSL network have added significantly to our costs and delayed our ability to earn a profit on DSL service. Our cable modem competitors are not subject to these regulations. This adverse regulatory environment was the primary reason we decided to slow the build-out of our broadband network. We expect to spend significantly less on capital expenditures due to this scale-back."[17]

II. By Helping Increase Spending on Telecom Products, Eliminating the Regulations Discussed Above Will Stimulate the U.S. Economy by Helping the Huge Telecom Product Industry Grow

While any significant increase in capital expenditures for telecom hardware, software, and content obviously will benefit consumers by making available to them a host of new and advanced telecom services, increased expenditures of this type also will benefit the U.S. economy by stimulating the industry that makes telecom products. Stimulating this industry is in the public interest since, just as rapid growth in this industry was disproportionately responsible for the healthy U.S. economy during the 1990s, massive retrenchment in this industry in the last

---

[15] *Id* at 15

[16] BellSouth Annual Report (Form 10K) at 8, filed Feb 28, 2003

[17] SBC Annual Report (Form 10K) at 2, filed March 14, 2003

four years is disproportionately responsible for the country's present economic problems. Total employment in the telecom manufacturing industry has declined by millions since early 2000; the sector that makes hardware for ILECs *alone* may have lost 500,000 jobs.[18] Hundreds of companies making software, hardware and content designed to improve telecommunications have gone out of business in the last four years, and serious economic problems in this industry continue today. Most of our companies have lost several competitors in the last year alone, and new capital remains difficult to obtain for the survivors. Attached as ATT. 1 are news articles discussing 16 telecom equipment startups from just one segment of the telecom equipment industry that shut their doors last year alone. These 16 companies constitute a tiny fraction of all telecom product makers that were forced to cease operations within that period.

Benefits to the U.S. economy that would result from a revived telecom manufacturing industry are undeniable. One study has projected that 974,000 new jobs, including 72,000 new telecom hardware manufacturing jobs alone, would be created if spending on telecom products increased to a level similar to what existed just four or five years ago.[19] FCC Chairman Powell has acknowledged the huge economic benefits to the U.S. economy that would result from a revived telecom capital spending by stating 18 months ago that "[w]e need [telecom] service providers buying switches and other equipment from . . . . [telecom manufacturers] who are even more distressed than the service industry. [These manufacturing] companies are innovators, the R&D arms that have kept . . . [U.S. telecom network[s] at the cutting edge. . . . They must survive for our future."[20]

---

[18] The Telecom Industry Ass'n, "The Economic and Social Benefits of Broadband Deployment" at 4 (Oct. 2003).

[19] Stephen B Pociask, "Building a Nationwide Broadband Network Speeding Job Growth", Feb. 25, 2002

[20] Chairman Michael Powell speech at the Goldman Sachs Communicopia XI Conference, New York, NY, Oct. 2, 2002 The U S Chamber of Commerce announced on March 31, 2004, that it has launced a new study that will

Not surprisingly, however, the ILEC industry has made clear that additional regulatory barriers such as those described above must be removed before ILECs themselves will be able economically to justify a substantial increase in capital spending. In fact, Verizon's Chairman and CEO told the U.S. Senate Commerce Committee just two weeks ago that Verizon may be forced to *reduce* capital spending unless Congress and the FCC eliminate price controls and other regulatory obligations that do not apply to Verizon's competitors:

> "U.S. telecommunications policy is broken and must be fixed . . . . [The new policy must] leave pricing to the marketplace rather than regulators, encourage [ ] investment in both wireline and wireless infrastructure . . . and put[ ] power in the hands of consumers, not government." [21]

---

seek to quantify even more precisely the impact on the telecom manufacturing industry of removing various regulations that have decreased demand for telecom products. The U.S. Chamber press release announcing this new study can be viewed at http://www uschamber.com/press/releases/2004/march/04-38 htm.

[21] See Verizon Press Release, "Verizon CEO Calls for Sweeping Revision of U S. Telecom Policy", May 12, 2004. The press release can be viewed at http://newscenter verizon com/proactive/newsroom/release.vtml?id=85053&PROACTIVE_ID=cecdcbcbcec9c9cfc9c5cecfcfcfc5cececbc8c9cbcac9c6ccc5cf

CONCLUSION

The Commission should increase spending on telecom products by eliminating the regulations discussed in this Reply.

Respectfully submitted,

Curtis A. Sampson, Chairman and CEO
Communications Systems, Inc.*
213 Main Street
Hector, MN 55342

Daryl Ingalsbe, President and CEO
Independent Technologies, Inc.**
11422 Miracle Hills Drive, Ste 500
Omaha, NE 68154

Jack Van Oosterhout, President and CEO
Sharp Laboratories of America, Inc.
5750 NW Pacific Rim Blvd.
Camas, WA 98607

John L. Vette, CEO
SNC Mfg. Company, Inc.
101 W. Waukau Avenue
Oshkosh, WI 54902

J.P. Diestel, V.P. Marketing
Salira Optical Network Systems
3920 Freedom Circle
Santa Clara, CA 95054

Roger A. Dorf, President and CEO
Celite Systems Inc.
7600 B N. Capital of Texas Hwy, Ste 200
Austin, TX 78731

A. Scott Higgins, President and CEO
Corona Optical System
450 Eisenhower Lane North
Lombard, IL 60148

Charles T. Douglas, President
Douglas Battery Mfg. Co.
500 Battery Drive
Winston-Salem, NC 27107

Brad E. Herr, President
AC Data Systems, Inc.
806 West Clearwater Loop, Ste C
Post Falls, ID 83854

Robert W. Shaner, Interim CEO
Remec, Inc.
3790 Via de la Valle
Del Mar, CA 92014

---

* Communications Systems, Inc is the parent company of the following telecommunications equipment manufacturers Transition Networks, Suttle, Milan Technology, and JDL Technologies

** Independent Technologies, Inc. also owns three other telecommunications manufacturing companies. Wintel (headquartered in Longwood, FL), Metro Tel Corp. (headquartered in New London, MN), and Sheyenne Dakota, Inc (headquartered in Fargo, ND)

James J. Keenan, CEO
Hendry Telephone Products
55 Castilian Drive
Goleta, CA 93117

Samuel D. Davis, President
Telesync, Inc.
5555 Oakbrook Pkwy, Ste 100
Norcross, GA 30093

Joseph Davis, CEO
Capella Photonics Inc.
19 Great Oaks Blvd, Ste 20
San Jose, CA 95119

Eric A. Norland, President
Norland Products Inc.
2540 Route 130, Ste. 100
Cranbury, NJ 08512

Michael C Stephens, President and CEO
CBM of America, Inc.
1455 W. Newport Center Drive
Deerfield Beach, FL 33442

Roger F. Meyer, Treasurer and General Mgr.
Commercial Electric Products Corporation
1738 E. 30th Street
Cleveland, OH 44114

Richard C. Orriss, President and CEO
Leapstone Systems, Inc.
220 Davidson Avenue
Somerset, NJ 08873

James F. Collins, Vice President and Gen. Mgr
Egide USA, Inc.
4 Washington Street
Cambridge, MD 21613

Michael L. Burke, General Manager
Homaco
188 West Randolph Street, Ste 1526
Chicago, IL 60601

Laurence N. Wesson, President
Aurora Instruments, Inc.
124 South Maple Street
Ambler, PA 19002

Dr. J. D. Evankow, Jr., President
FiberControl
1208 Highway 34, Tower No. 1
Aberdeen, NJ 07747

Michael A. Ross, President
Aculab USA, Inc.
421 Oak Avenue
Panama City, FL 32401

Dr. Simin Cai, President
NSG America, Inc.
28 Worlds Fair Drive
Somerset, NJ 08873

Peter R. McIntyre, VP, Marketing and Sales
Xecom, Inc
374 Turquoise Street
Milpitas, CA 95035

Lindsay Austin, CEO
SpectraSwitch, Inc.
445 Tesconi Circle
Santa Rosa, CA 95401

Klaus Bollmann, President
Nextus, Inc.
101 Halmar Cove
Georgetown, TX 78628

Bill Johnson, President and CEO
NorthStar Communications Group, Inc.
1900 International Park Drive
Birmingham, AL 35243

Robert F. Smith, President
Arnco Corporation
860 Garden Street
Elyria, OH 44035

Hans Marosfalvy, President and CEO
SPC TelEquip
8500 West 110th Street, Ste 525
Overland Park, KS 66210

Sid Sung, President
Alpha Telecom, Inc. USA
1394 Borregas Avenue Avenue
Sunnyvale, CA 94089

Aaron A. Bent, VP Business Development
Continuum Photonics, Inc.
5 Fortune Drive
Billerica, MA 01821

ATT. 1

DECEMBER 29, 2003
PREVIOUS NEWS ANALYSIS

2003 Top Ten: Startup Flameouts

In 2003, *everything old was new again*, and new things had become old This wasn't good for startups, especially flashy, pie-in-the-sky startups promising "*revolutionary*" products

Elaborate new technologies that required ripping out and replacing old equipment were rejected outright Carriers' interest was limited to anything that would enable them to sweat the old network for another 12 months

As if that weren't bad enough, venture capitalists continued to hide in caves, so even those startups that had promising developments had trouble finding the cash to continue

Combine hesitant operators with coy VCs, and you get a miserable environment for startups It's easy to see why network equipment startups selling flashy new kit in 2003 had such a tough year

Here's a rundown of some of the startup burnouts we reported this year·

No 10 Crescent Networks

Three months after it declared that it absolutely *wasn't* closing its doors, this edge router company did indeed cease operations (see Crescent is Waning)

Crescent's routers fared well in tests with BTexact Technologies, the testing arm of BT plc (London BGC - message board), but it was unable to turn these early trials into revenue-generating sales and shut its doors in January

After raising $66 million, the assets of the company were sold to British network equipment manufacturer Marconi Corp plc (Nasdaq· MRCIY - message board; London MONI) for "tens of thousands of pounds," according to a source familiar with the deal Did somebody say FIRE SALE?

No. 9 Silicon Access Networks

This network processor company's chips were up sometime in October, but it was hard to tell exactly when Silicon Access shut its doors, as it disconnected the phone lines before *Light Reading* had the chance to report a proper postmortem (see For the Masses)

Nevertheless, our stories leading up to its disappearance shed some light on what happened

Silicon Access made a big fuss about a deal it claimed to have signed with Huawei Technologies Co Ltd in February. The Chinese router company was

said to be using its network processor, address processor, classifier, and accounting device for 10-Gbit/s port speeds (see Silicon Access Nabs Huawei)

But for months after this announcement, Silicon Access's competitors insisted the deal never materialized (see Huawei Chip Deal: Who's Got It?)

Silicon Access officials stood by their story. Chief operating officer Rex Naden wouldn't elaborate much, citing Huawei's reluctance to publicly disclose its plans, but at the time he said Silicon Access "absolutely" did sign a contract with Huawei, claiming revenues were on the way

These revenues never amounted to much, clearly, as Silicon Access has not been heard from since The company had raised a total of $124 million in funding

No. 8 Corona Networks

IP edge router startup Corona was in business for six years before it eventually kicked the bucket in August (see Corona Networks Disappears)

Corona's end came as a bit of a surprise, as just a few months earlier it had squeezed $8 million in extra funding out of its VCs *and* clinched a deal with Alcatel SA (NYSE. ALA - message board; Paris CGEP·PA) The French equipment maker signed a contract with Corona to produce a broadband remote access server (B-RAS) for its 7301 DSLAM (see Corona Gets a Boost)

Then, mysteriously, Corona was spotted in talks with Zhone Technologies Inc. (Nasdaq. ZHNE - message board) around the same time, but this conversation cooled, and Zhone went off looking at other IP edge router/subscriber management services companies

Did Corona blow it by hedging its bets on both of these deals? Whatever happened, it's time was up It had raised a total of $78 million in funding.

No. 7 Tenor Networks

Tenor Networks raised $120 million to build a giant IP/MPLS switch for service provider core networks The problem? Cisco Systems Inc (Nasdaq: CSCO - message board) and Juniper Networks Inc (Nasdaq JNPR - message board) had already started building MPLS functionality into their existing routers – thus rendering Tenor's box obsolete before it even hit the shelves Bummer!

In addition, carriers were looking for equipment that could help them gradually migrate existing ATM services onto an MPLS backbone The Tenor box required carriers to rip out old kit, which really doesn't go over well in hard times when no one has two beans to rub together.

Tenor tried to change with the times, but it ended up being behind the market with its next product and eventually pulled the plug in February (see Tenor Goes Silent)

No. 6 Metro-Optix

Metro-Optix, one of a bunch of startups targeting the next-gen metro-optical networking sector, built *and* sold its multiservice provisioning system to 15 customers but *still* failed to keep its head above water (see More Cuts Coming)

As the need for capacity continued to wane, so did many of the startups that

Metro-Optix, which raised a whopping $136 million, ended up auctioning off its assets to Xtera Communications Inc. in a fire sale deal in August, the details of which were never disclosed. One *Light Reading* reader had this to say about the achievement:

> *"I just don't get how the shareholders (ie: VCs - message board) and board could have approved this deal. This is akin to Xtera going out and buying a MacDonald's franchise until the market for its core products (re-)appears. It is inconceivable that the board has allowed the company to continue despite a lack of market for its products, and/or a lack of competitive differentiation." -- Zettabit.*

Oddly enough, Xtera, flush with $30 million in funding in August, is still hanging in there (see Xtera Scores Surprise $30M).

No. 5 CeyYa! Ceyba

Alas, the same fate did not await Ceyba (formally Solinet Systems Inc.), another optical long-haul startup like Xtera (see Ceyba Shuts Down).

In August Ceyba was abandoned by one of its VCs, which pulled out of a round that was expected to happen later this year. The move set the cat among the pigeons as the rest of board also bailed on the plan, deciding that it was too risky to keep Ceyba going. [Ed. note: And a thousand lemmings can't be wrong!]

Ceyba had at least two U.S. carrier customers and a war chest of $93 million in funding, but this still wasn't enough (see Ceyba Rattling in Ottawa).

Startups like Ceyba were hit hardest by the downturn, because they specialized in products for core network capacity, where the most extravagant excesses of the boom era were focused. What's more, most next-gen equipment for core deployment calls for carriers to commit to a new network architecture that's different from their current, Sonet-based gear. For the majority of 2003, carriers balked at any such changes, as they drop all but the most urgently needed network upgrades.

No. 4 Innovance Networks

Another long-haul letdown, Innovance shut its doors in December after failing to secure additional funding, according to several Canadian news reports (see Innovance CEO: Layoff a 'Rebalance', Company Makeover).

Innovance's plan was to provide end-to-end optical transport for carriers, incorporating a kind of "wavelength-on-demand" style of provisioning. With capex spending still frozen and excess capacity still a major problem, Innovance went *in-a-trance* and never came out again.

The company employed more than 310 employees in February 2002 and had raised more than $130 million in funding since it opened for business in May 2000.

No. 3 Network Photonics

Fancy all-optical switching gear featuring tilting mirrors and prisms that split light were all the rage in 2000 when Network Photonics raised a staggering $106.5 million to build some.

Unfortunately, these prisms are now tripping the light fantastic on eBay for

Seriously, though, if you're talking about splitting the atom, or whatever Network Photonics was doing, when everyone else is talking about maintaining the tin cans and string, what do you expect?

The company did attempt to regroup and do something else, but it failed abysmally and eventually shut its doors in April (see Network Photonics Scales Back , Network Photonics Shuts Down)

No. 2 OMM

OMM, once the leader of the pack in the all-optical switching game, faced the same gloomy fate as Network Photonics – only its demise dragged on even longer, as most folk expected the company to pull through (see OMM The End Is Near)

The all-optical subsystem vendor had been trying to land more funding since mid 2002, and given that it was shipping product and had paying customers, this didn't seem impossible

OMM counted Ciena Corp (Nasdaq: CIEN - message board) and Siemens AG (NYSE. SI - message board, Frankfurt: SIE) among its customers, but it turned out that most of its work was still going into lab trials rather than live networks, which doesn't pay the bills (see OMM-inous News).

OMM decided to take a stab at 3-D MEMS (more light-splitting prisms and tilting mirrors), which no doubt gave the VCs the willies and contributed to their eventual decision to pull out OMM closed its doors in March, laying off 85 employees It had raised close to $100 million (see OMM Closes Its Doors).

OMM's demise spelled the end of all-optical switching in 2003 The question now is Will this sector ever come back?

No. 1 PhotonEx

At the top of the pile of companies that hit bottom in 2003 is PhotonEx, which filed for Chapter 11 bankruptcy protection in November (see PhotonEx Falls Into 40Gig Hole)

PhotonEx, founded in 1999, claimed to be selling "the world's only commercially-available, field-proven," 40-Gbit/s, long-haul DWDM systems. To do so, it raised an astounding $178 million in three financing rounds.

"It was a classic case of a company with technology too advanced for what carriers wanted," says Scott Clavenna, chief analyst at Heavy Reading.

Unfortunately for PhotonEx, carrier budgets didn't allow for 40-Gbit/s systems nearly as quickly as the company had hoped Sources say shortly after the company failed to get any part of the U S government's Global Information Grid Bandwidth Expansion (GIG-BE) business, its managers decided to wind down operations

For anyone who's counting, the total amount of funding raised by these 10 companies was $1 13 billion. Which would almost cover the *Light Reading* staff's Christmas bonus!

— The Staff, *Light Reading*

LIGHT READING

JANUARY 23, 2004
PREVIOUS NEWS ANALYSIS

Appian Closes With No Cigar

Appian Communications Inc , a tenacious five-year-old metro optical networking startup that almost pulled through at the last minute, is closing its doors today, say sources close to the company.

Today, eyewitnesses said, boxes were being carted out of the company's headquarters after it came within a whisker of landing a $12 million funding round as it closed in on a deal with France Telecom SA (NYSE: FTE - message board) -- and then lost it all at the last minute

Just a week ago, the company had a party in its Acton, Mass , headquarters, to celebrate the coming infusion of capital, sources say

Then things went into reverse about as fast as a Howard Dean political campaign At the last minute, the contract with France Telecom fell through, and then apparently the venture capitalists who were prepared to deliver Appian the *twelve mil* got cold feet As of today, boxes were being packed, the creamer in the kitchen was being thrown out, and the desks cleared, say two sources working in the same building where Appian was located

Light Reading was not able to confirm the news with company officials, but at least three anonymous sources said the story checked out There was no answer at the corporate switchboard, and messages left for Appian Communications executives and investors were not returned

MAY 22, 2003
PREVIOUS NEWS ANALYSIS

Onix: Another MEMS Casualty

With the bang of a gavel earlier this week, the book closed on Onix Microsystems Inc (not to be confused with the former chip startup Onex -- see Onex Chip Sees Light of Day), the latest casualty in the formerly high-profile business of all-optical switches

The last of Onix's assets went to auction Tuesday Whether the company's intellectual property found a home is unknown, as the organizers haven't yet disclosed all the results to Gary Koos, Onix's vice president of finance and its last remaining employee

In its prime, Onix employed as many as 250 "We went down to 20 back in October and 10 in January Now we're down to one," Koos says. He confirmed to *Light Reading* that the company has shut down

In 2000, photonic-switch companies were all the rage Well more than a dozen companies began developing all-optical switch fabrics, usually based on MEMS (micro-electro-mechanical system) or liquid-crystal technology but sometimes dipping into more exotic technologies (see Optical Switching Fabric)

Like OMM Inc , Onix raised a bundle of cash thanks to the hype (see MEMS Startup Onix Gets $35 5M and Onix Scores $95 Million) And, like OMM, Onix had to scale back its ambitions once it became clear that large all-optical switches weren't a viable market (see Onix Follows in OMM's Footsteps) And now, Onix is following OMM into oblivion (see OMM The End Is Near)

Tiny all-optical switches, such as 1x2 devices for protection switching, continue to be a viable market, with players such as JDS Uniphase Corp (Nasdaq JDSU - message board, Toronto JDU) But Onix and others were chasing bigger game, the large-scale all-optical switch that would someday power all-optical networks

JANUARY 21, 2003
PREVIOUS NEWS ANALYSIS

Headcount: Meet My Shareholders?

• AcceLight Networks Inc closed its doors for good last Friday and sent its last 60 employees home, according to industry sources Word is that in the end, the company's photonic switch fabric didn't work as advertised, and the company even tried to replace it with an electrical fabric in a last-ditch attempt to raise more money and keep potential customers interested The company's managers did not return phone calls Short of an official casket viewing and ceremony, several *Light Readers* have already started chiseling AcceLight's tombstone

• LaserSharp Corp , a maker of Raman amplifiers, has closed, according to a source close to the startup The company was founded in May 2000 by fiber laser expert Hong Po and it was funded by Optical Capital Group and The Grosvenor Funds It's not clear how many were employed by LaserSharp nor is it clear what will happen to the company's technology after closure LaserSharp executives couldn't be reached for comment

OCTOBER 20, 2003
PREVIOUS HEADCOUNTS

The Party's Over

• Word in the Boston area is that startup Nauticus Networks Inc is no more. According to one of its former employees, the company shut its doors last week Nauticus, which was funded by Charles River Ventures, Matrix Partners, North Bridge Venture Partners, and Advent International, supposedly had a term sheet in hand for another round of funding, but wasn't able to secure a bridge loan As a result, management was forced to pull the plug last Thursday.

At least one executive is still hanging around the office CEO Josh Weiss

picked up his phone on Tuesday, but when he heard it was *Headcount* he refused to answer questions He said he'd call right back – yeah, right.

JANUARY 21, 2004
PREVIOUS NEWS ANALYSIS

Coriolis Shuts Down

Coriolis Networks Inc. closed yesterday, a little more than a month after announcing its largest revenue equipment deployment to date (see West Looks East .). The Sonet multiservice provisioning platform (MSPP) maker says its board decided to pull the plug after it was unable to get a funding commitment from venture capitalists

Greg Wortman, formerly Coriolis's VP of marketing, says a consortium of banks are now meeting to decide what to do with the company's intellectual property "Unfortunately our four customers are without any support from Coriolis," he says

Those customers were energy subsidiary Vic Tokai (via reseller Nissho Electronics Corp.); Alaskan CLEC General Communication Inc. (GCI), Georgia-based Marietta FiberNet, and Ephrata, Pennsylvania-based D&E Communications Inc.

The company also says it was on the shortlist of companies AT&T Corp. (NYSE: T - message board) was considering in its latest multiservice access architecture request for information (RFI)

Whoa. Hold the phone. Why would a VC not want to invest in a company that already has a revenue-producing product, had an "in" at AT&T, and already has a reseller arrangement hammered out in Asia?

"[The VCs] were looking for more of a near-term exit strategy than they were able to see in the company," says Wortman. He says VantagePoint Venture Partners was the last firm that Coriolis had talked to regarding funding. Geoff Mott, managing director at Vantage Point, could not be reached for comment.

Perhaps another factor is that Coriolis didn't have enough customers and lacked a marquee account. In addition, its market perception was low compared to its competitors. In the overall results from Heavy Reading's equipment survey last year, Coriolis ranked 17 in the Sonet MSPP category and 18 in the SDH MSPP category (see Heavy Reading Surveys Telecom Vendors).

Finally, while the company had a unique MSPP, it lacked the wider next-gen Sonet product line that incumbent players hold dear. For example, the chart below shows how Nortel's Sonet products positioned against Coriolis's smaller lineup.

FEBRUARY 27, 2003
PREVIOUS HEADCOUNTS

Good News, Bad News

• AirFiber Inc , one of the first free-space optics vendors to make a splash, shut its doors on Friday Spokesman Jeff Mordock confirmed the closure, he was packing his office when Headcount called AirFiber raised about $92 million in funding from big names like Nortel Networks Corp. (NYSE/Toronto: NT - message board), Qualcomm Inc (Nasdaq QCOM - message board), Enterprise Partners Venture Capital, and General Motors. The 50 employees left at the company were informed of the shutdown on February 19th The company's current products will be supported by some other entity, Mordock says, but he won't yet give specifics.

JULY 04, 2003
PREVIOUS NEWS ANALYSIS

TeraCross Shuts Down

Switch-fabric startup TeraCross Ltd began shutting down this week, having decided the market was too brutal to carry on

"We had decided to do that while there were still funds in the coffers," says Kurt Busch, vice president of marketing. Investors and management wanted to bow out while the company could still pay off its debts and provide its nine employees with final paychecks and severance, he says "It wasn't like Pluris " (See Pluris Shutdown Confirmed .)

TeraCross managed to complete development of its GLIMPS-1000 chipset, but the market for merchant switch fabrics was too grim to justify continuing

"The switch fabric market's just not a good place to be right now," Busch says. "We did our best to try to raise money, but we saw how difficult it was going to be."

Power X Networks Ltd was an early casualty among switch-fabric vendors, and Zagros Networks fell more recently (see Power X Powers Down and Oath (#@%#!!) of Allegiance)

Based in Ramat Gan, Israel, TeraCross had raised $13 million in two rounds of venture financing Backers included Argoquest Holdings LLC, Ascend Technology Ventures, Intel Capital, and Pitango Venture Capital.

— Craig Matsumoto, Senior Editor, *Light Reading*

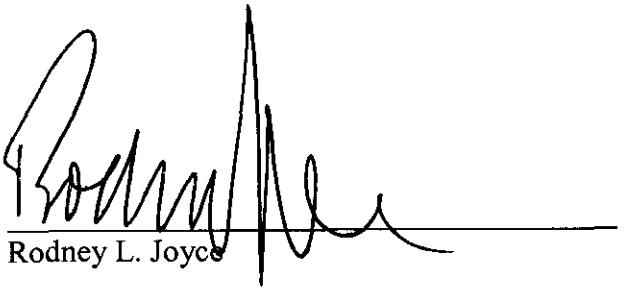
Certificate of Service

I certify that a copy of the foregoing "Reply Comments of Telecommunications Manufacturer Coalition" was mailed today, May 24, 2004, by first class mail to each of the following:

Jason Oxman, Assistant General Counsel
Covad Communications
600 14th Street, NW, Ste 750
Washington, DC 20005

Lawrence J. Lafaro
AT&T Corporation
One AT&T Way
Room 3A227
Bedminster, NJ 07921

Kimberly A. Scardino
MCI, Inc.
1133 19th Street, NW
Washington, DC 20036



Rodney L. Joyce